

THIS WORKSHEET IS PROVIDED AS A COURTESY. THE CONTRACTOR IS RESPONSIBLE FOR COMPARING ALL INFORMATION WITH THE CONTRACT DOCUMENTS.

NEWTONVILLE AVE. SEWER & UNDERDRAIN REPLACEMENT

ESTIMATE DATE: AUGUST 23, 2011

xestnewtonvillesew

ITEM	DESCRIPTION			QUANTITY	UNIT	UNIT COST	EXTENSION
1	MOBILIZATION (LAYOUT SERVICES, VIDEO FILE, NOTIFICATIONS, MEETINGS, ETC.)			1	LS		\$ -
2	MANUFACTURED SILT SACK FOR CATCHBASIN SEDIMENTATION CONTROL			6	EA		\$ -
2.1	TREE PROTECTION			5	EA		\$ -
3	SAWCUTTING OF PAVEMENT			450	LF		\$ -
4	SEWER & UNDERDRAIN BYPASS SYSTEM(S) (INCLUSIVE OF 'SILENT-PAC' PUMP)			1	LS		\$ -
5	GENERAL EXCAVATION & DISPOSAL OF MATERIAL(S)			NA	NA		NA
6	EXPLORATORY EXCAVATION			10	CY		\$ -
7	EXCAVATION & DISPOSAL OF UNSUITABLE SOIL MATERIAL (INCLUSIVE OF EXTRA-DEPTH WORK)			50	CY		\$ -
8	EXCAVATION & DISPOSAL OF ROCK			1	CY		\$ -
9	SAND FOR THE BEDDING OF PIPES & FITTINGS (AS DIRECTED)			5	TON		\$ -
10	F&P	3/4" FRACTURED CRUSHED STONE (PRIMARILY FOR PIPE BEDDING)		175	TON		\$ -
11	F&P	GRAVEL FURNISHED FROM OUTSIDE THE SITE (FOR GENERAL USE)		20	TON		\$ -
12	F&P	DENSE GRADED CRUSHED STONE		20	TON		\$ -
13	F&P	TYPE 1-E CONTROLLED DENSITY FILL ('FAST SET' & EXCAVATABLE) (AS DIRECTED)		5	CY		\$ -
14	F-T-L	12" SDR 35 PVC SEWER PIPE		220	LF		\$ -
15	F-T-L	6" SDR 35 PVC SEWER PIPE FOR SERVICE CONNECTIONS & UNDERDRAIN		280	LF		\$ -
16	F&I	12"x 6" SDR 35 PVC TEE-WYE		2	EA		\$ -
17		6" x 6" SDR 35 45 DEGREE BEND		8	EA		\$ -
18		6"x 6" SDR 35 90 DEGREE LONG SWEEP		6	EA		\$ -
19		PRECAST CONCRETE SEWER MANHOLE (EXCLUDING COVER & FRAME)		10	VF		\$ -
20		'STRONG-BACK' FLEXIBLE COUPLING @ 5" V.C. PIPE x 6" SDR35 P.V.C. PIPE		2	EA		\$ -
21		'STRONG-BACK' FLEXIBLE COUPLING @ 6" V.C. PIPE x 6" SDR 35 PVC PIPE		2	EA		\$ -
22		'STRONG-BACK' FLEXIBLE COUPLING @ 12" V.C. PIPE x 12" SDR 35 PVC PIPE		1	EA		\$ -
23	F-T-L	10" DUCTILE IRON DRAIN PIPE (CLASS 52)		20	LF		\$ -
24	F&I	A MANHOLE COVER & FRAME		1	SET		\$ -
25		ADJUST A PRE-EXISTING UTILITY CASTING (EXCLUDING GATE BOXES)		1	EA		\$ -
26	F-T-L	1"	TYPE-K COPPER WATER SERVICE PIPE	30	LF		\$ -
27	F&I	1"	CORPORATION COCK	1	EA		\$ -
28	F&I	1"	CURB STOP WITH BOX	1	EA		\$ -
29	F&I	1" - 1 1/2"	(NOMINAL) COUPLING FOR WATER SERVICE PIPE	1	EA		\$ -
30		DUST CONTROL (CHEMICAL TREATMENT)		500	LB		\$ -
31		2" BITUMINOUS CONCRETE FOR TEMPORARY PATCH		30	TON		\$ -
32		4" TYPE I-1 BITUMINOUS CONCRETE FOR PERMANENT (PATCH) TRENCH RESURFACING (PLACED IN TWO COURSES)		60	TON		\$ -
33		CEMENT CONCRETE WITH LAMPBLACK (@2 POUNDS/CY) FOR PANEL REPAIR		2	CY		\$ -
34		LOAM BORDER & LAWN RESTORATION		5	SY		\$ -
35		MATERIALS TESTING ALLOWANCE		1	ALL	\$500	\$ 500
36		MISCELLANEOUS WORK ALLOWANCE (ENGINEER'S DISCRETION)		1	ALL	\$2,000	\$ 2,000
37		ALLOWANCE FOR THE PAYMENT OF POLICE OFFICERS (MONIES ARE PAID DIRECTLY THRU AN INTER-DEPARTMENTAL)		1	ALL	\$4,000	\$ 4,000
38		WARNING AND/OR SAFETY DEVICES FOR THE CONTROL OF CONSTRUCTION OPERATIONS		1	LS		\$ -
39		FURNISH & MOUNT SAFETY & SPECIALTY SIGNBOARDS (INCLUDING THE POST SYSTEM)		40	SF		\$ -

TOTAL

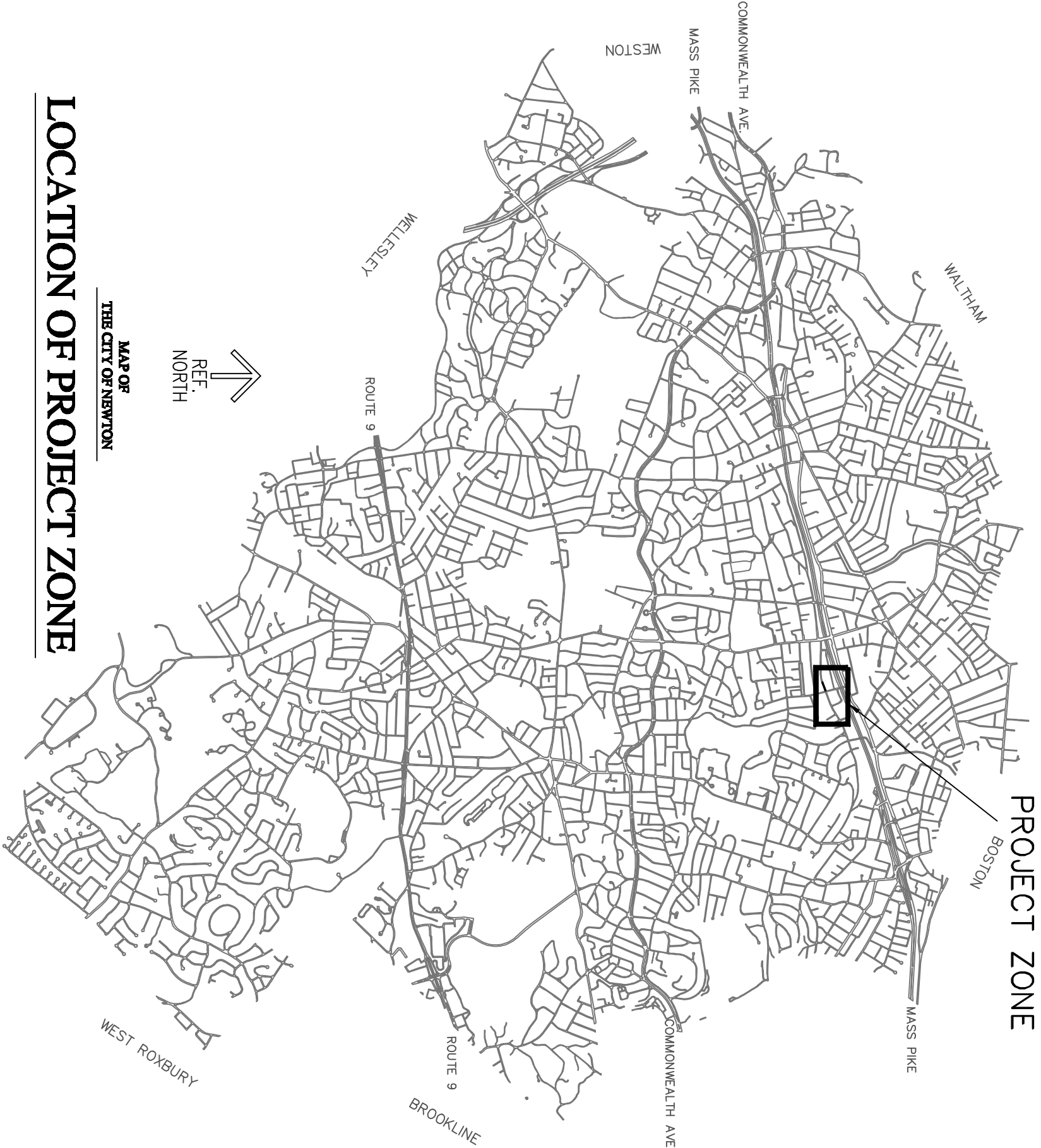
TOTAL + \_\_\_\_ % \$ -



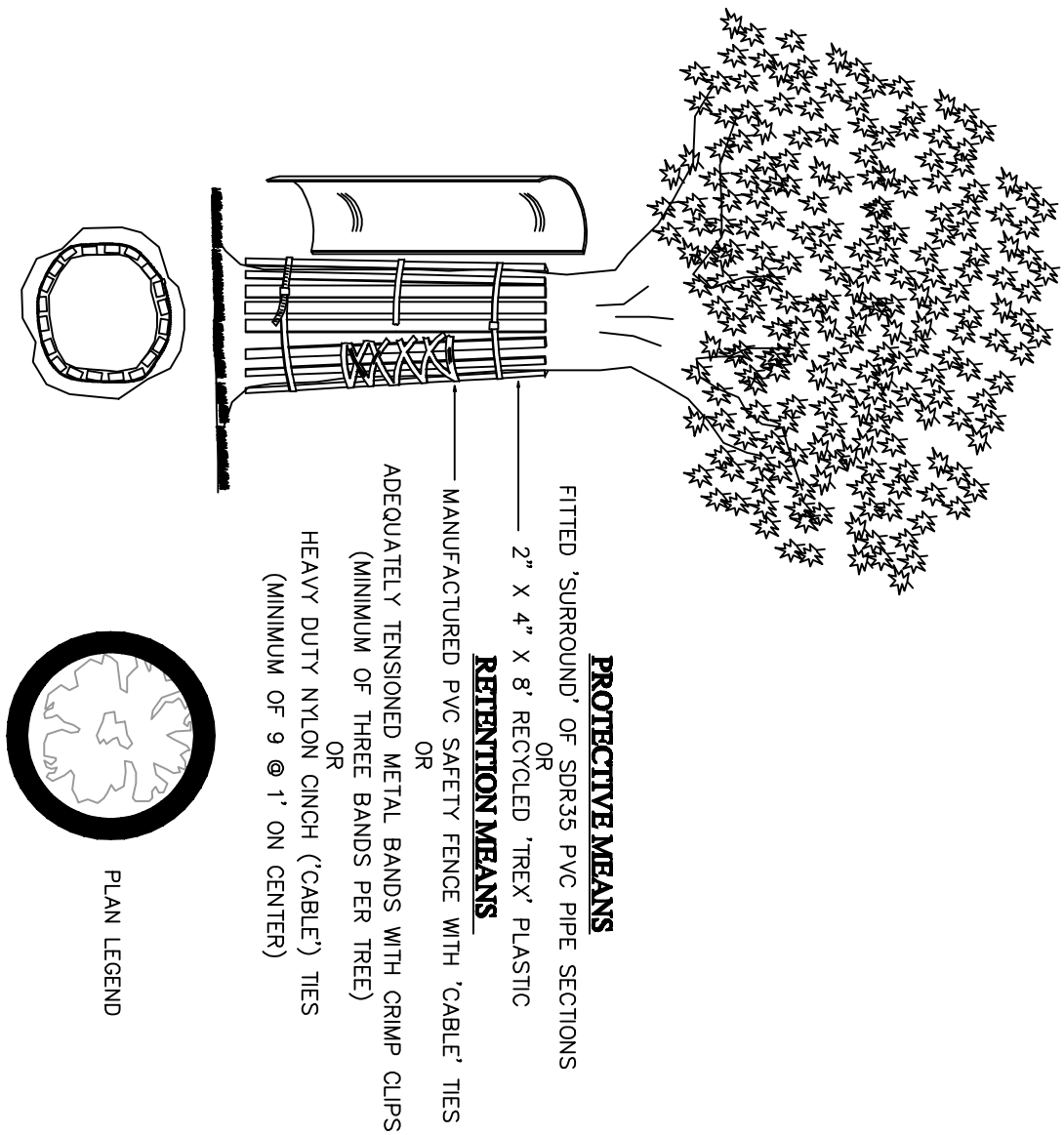


PROCESS AND CONSTRUCTION NOTES:

1. THE CONTRACTOR IS REQUIRED TO PROVIDE A SUPERINTENDENT OF OPERATIONS, A QUALIFIED INDIVIDUAL WHO WILL BE ON-SITE AT ALL TIMES TO ADDRESS THE CRITICAL NEEDS OF THE PROJECT. IN ADDITION, A 7 DAY/24 HOUR PHONE NUMBER MUST BE LISTED WITH THE CITY TO ADDRESS ALL PROJECT BUSINESS AND/OR EMERGENCY CALLS.
2. THE CONTRACTOR IS RESPONSIBLE FOR THE VERIFICATION OF ALL EXISTING CONDITIONS AND IS OBLIGATED TO IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES OF PLAN VERSUS ACTUAL FIELD CONDITIONS, AS WELL AS ANY SUBSTANTIAL DIFFERENCES IN ESTIMATED QUANTITIES.
3. PRIOR TO MOBILIZATION, THE CONTRACTOR IS TO COORDINATE WITH THE WATER DEPT. AND THE ENGINEER AND IS TO LOCATE, UNCOVER, BLOW-OUT, AND DETERMINE BOTH THE LOCATION AND SERVICEABILITY OF ALL EXISTING GATE VALVES AND/OR HYDRANTS WHICH MAY HAVE TO BE ACCESSED DURING THE PERFORMANCE OF THE WORK. OPERATION OF THE GATE VALVES WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND IS TO BE PERFORMED UNDER THE DIRECTION OF THE ENGINEER.
4. THE CONTRACTOR SHALL MAKE A VIDEO AND/OR PHOTOGRAPHIC RECORD OF EXISTING CONDITIONS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES AND/OR AS THE ACTIVITIES PROGRESS. THE CONTRACTOR IS RESPONSIBLE FOR DEFENDING AND/OR RESPONDING TO ALL DAMAGE CLAIMS. A COPY OF THE VIDEO AND ANY SUPPLEMENTAL PHOTOGRAPHS SHALL BE SUBMITTED TO THE CITY ENGINEER UPON REQUEST.
5. THE UNDERGROUND PIPES & STRUCTURES SHOWN ON THESE PLANS ARE TAKEN FROM THE BEST AVAILABLE DEPARTMENTAL SOURCES. THE CITY DOES NOT GUARANTEE EITHER THE ACCURACY, OR THE COMPLETENESS, OF THIS INFORMATION. THE CONTRACTOR MUST MAKE HIS OWN INVESTIGATIONS OF THE AREA(S) PRIOR TO MOBILIZATION.
6. THE CONTRACTOR SHALL CONTACT DIG SAFE @ 1-888-344-7233 AND SHALL NOT OCCUPY ANY AREAS) UNTIL THE AUTHORIZATION DATE HAS BEEN ATTAINED.
7. FOR FURTHER UTILITY SUPPORT, AND EMERGENCY RESPONSE REQUESTS, THE CONTRACTOR IS ADVISED TO CONTACT AND ESTABLISH PROTOCOL WITH ALL ORGANIZATIONS HAVING UTILITIES IN THE PUBLIC WAY INCLUSIVE OF : KEYSpan GAS, N-STAR ELECTRIC, VERIZON, AT&T CABLE, RCN CABLE, NEWTON WATER, NEWTON SEWER & DRAIN.
8. ANY UTILITY RELOCATIONS, AND/OR UTILITY ISSUES, ARE TO BE DIRECTLY ADDRESSED AND COORDINATED BY THE CONTRACTOR WITH THE RESPECTIVE UTILITY COMPANY AND ANY ADJOINING CITY OR TOWN WHENEVER APPLICABLE.
9. THE FINAL DETERMINATION OF THE SCOPE OF PROJECT, AS WELL AS THE PROJECT LIMITS), SHALL BE ESTABLISHED IN THE FIELD BY THE ENGINEER.
10. THE CONTRACTOR IS REQUIRED TO TAKE AS-BUILT TIES AS THE WORK PROGRESSES. THIS ACTIVITY IS TO TAKE PLACE UNDER THE DIRECT SUPERVISION OF THE ENGINEER AND ALL RECORDS ARE TO BE SUBMITTED ON A DAILY BASIS. IN ADDITION, THE CONTRACTOR IS TO SUBMIT A FINAL AS-BUILT PLAN ON A FORMAT ACCEPTABLE TO THE ENGINEER.
11. SEWER MANS ARE TO BE INSTALLED WITH LASER GUIDANCE OR OTHERWISE BY THE USE OF A TRANSIT/LEVEL, AND THE CONTRACTOR IS FURTHER RESPONSIBLE FOR THE LAYOUT, LINE AND GRADE OF ALL OTHER MAINHOLES, PIPES AND APPURTENANCES.
12. ANY PROPOSED SEWER HOUSE CONNECTIONS (SH) WHICH ARE SHOWN ON THESE PLANS ARE SUGGESTED LOCATIONS ONLY. THE EXACT LAYOUT OF THESE LINES ARE TO BE DETERMINED IN THE FIELD IN ACCORDANCE WITH TUDORE PLUMBING REQUIREMENTS OF THE CITY AND THE BUILDING OWNER.
11. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY WITH U.S OCCUPATIONAL HEALTH AND SAFETY ADMINISTRATION (OSHA) STANDARDS, AND MASSACHUSETTS DEPARTMENT OF LABOR OCCUPATIONAL SAFETY STANDARDS IN THE PERFORMANCE OF THIS WORK.
12. THE CONTRACTOR IS RESPONSIBLE FOR ALL SAFETY ASPECTS OF THIS PROJECT, AND COMPLIANCE WITH THE MOST CURRENT OSHA REGULATIONS.
13. ALL EXCESS EXCAVATION MATERIAL AND/OR WASTE ITEMS, INCLUSIVE OF SEWERAGE SATURATED SOILS, OF ANY TYPE OR MATERIAL, ARE TO BE DISPOSED OF AT A LEGAL DUMPING SITE AT THE CONTRACTORS OWN EXPENSE. NO DISPOSAL SITE SHALL BE PROVIDED BY THE CITY.
14. ALL SITE GENERATED DEBRIS AND REFUSE IS TO BE REMOVED FROM THE SITE ON A DAILY BASIS. AT NO TIME SHALL PASSAGE OF ANY SIDEWALK AND/OR DRIVEWAY BE IMPEDED/BLOCKED BY STOCKPILED MATERIAL(S).
15. THE STAGING AND STOCKPILING AREA IS TO BE KEPT IN A CONDITION ACCEPTABLE TO THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR ALL SAFETY ASPECTS RELATIVE TO THIS AREA.
16. ALL EXCAVATIONS ARE TO BE BACKFILLED IN LIFTS, WITH EACH SUCCESSIVE LIFT BEING COMPACTED ONLY WITH APPROVED 'JUMPING-JACK' TYPE COMPACTORS AND/OR PNEUMATICALLY POWERED TAMPING BITS, UNTIL SUCH TIME AS THE OPTIMUM COMPACTION REQUIREMENTS ARE OBTAINED. THIS IS STRICTLY ENFORCED TO ENSURE LONG-TERM STRUCTURAL INTEGRITY OF THE ROADWAY SYSTEM.
17. AREAS DISTURBED BEYOND THE LIMIT OF THE CONTRACT SHALL BE REPAIRED AND/OR RESTORED AT THE CONTRACTORS OWN EXPENSE AND LEFT IN A CONDITION COMPARABLE TO THE ORIGINAL, ALL OF WHICH IS SUBJECT TO THE ENGINEERS APPROVAL.
18. ANY DAMAGE TO THE EXISTING SEWER, DRAIN AND/OR WATER SYSTEMS WHICH IS NOT SPECIFICALLY DUE TO THE REMOVAL OF IMPACTED ROCK, IS TO BE REPAIRED AND/OR REPLACED BY THE CONTRACTOR AT HIS OWN EXPENSE UNLESS OTHERWISE NOTED. IMPACTED ROCK CONDITIONS ARE TO BE VERIFIED BY THE ENGINEER PRIOR TO ROCK REMOVAL.
18. ● ALL TRENCHES ARE TO BE BACKFILLED AT THE END OF THE WORKDAY UNLESS PROPERLY PLATED. ANY PLATES UTILIZED UNDER THIS CONTRACT ARE TO BE RECESSED TO PREVENT DISLODMENT DURING POTENTIAL SNOW-CLEARING OPERATIONS.
19. ● IN THE EVENT THE CONTRACTORS OPERATIONS CAUSE IONG CONDITIONS TO OCCUR THEN THE CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGN THE AFFECTED ROADWAY AND/OR SIDEWALK AREAS.
19. ALL 'SHORT-TERM' STEEL TRENCH PLATES, (UP TO FIVE CALENDAR DAYS OF USE), ARE TO BE SECURED IN SUCH A MANNER SO AS TO PREVENT MOVEMENT AND/OR 'BATTLING'. ALL 'LONG-TERM' PLATES ARE TO BE RECESSED INTO THE EXISTING ROADWAY.
20. THE CONTRACTOR IS TO MAINTAIN AND/OR PROVIDE EMERGENCY VEHICLE ACCESS THROUGHOUT EACH PROJECT AREA. IN ADDITION, NO TRAFFIC DELAY IS TO EXCEED FIVE MINUTES IN DURATION ON ANY ARTERIAL ROAD. ALL SECONDARY ROADS MUST BE APPROPRIATELY DETOURED, MARKED, OR ADDITIONALLY SIGNED TO PREVENT DELAYS AND/OR CONFUSION TO THE MOTORING PUBLIC.
21. IF DETOURING IS ALLOWED OR DIRECTED BY THE ENGINEER ALL SECONDARY ROADS MUST BE APPROPRIATELY DETOURED, MARKED, OR ADDITIONALLY SIGNED TO PREVENT DELAYS AND/OR DIRECTIONAL CONFUSION.
22. ALL BITUMINOUS CONCRETE APPLIED TO THE ROADWAY SHALL ONLY BE APPLIED IN BRIGHT SUNSHINE OR PARTLY CLOUDY WEATHER WITHOUT THE THREAT OF RAIN. THE CONTRACTOR IS NOT TO SCHEDULE BITUMINOUS ROADWAY APPLICATION UNLESS SUCH FAVORABLE WEATHER CONDITIONS ARE PROFESSIONALLY FORECAST BY A RECOGNIZED WEATHER AGENCY. FURTHER, NO BITUMINOUS CONCRETE SHALL BE APPLIED UPON A RESIDUALLY WET SURFACE, AND NO BITUMINOUS CONCRETE WHICH HAS BEEN PRE-MATURERLY COOLED BY RAIN, EITHER ON THE TRUCK OR ON THE ROADWAY, WILL BE ACCEPTED.
23. HOURS OF OPERATIONS ARE SET BY LAW. NO MACHINES OR EQUIPMENT ARE TO BE ACTIVATED BEFORE 7:00 A.M. & NO WORK IS TO EXTEND BEYOND 4:30 P.M.. NO WEEKEND OR HOLIDAY WORK, OR OTHER OFF HOUR WORK, IS ALLOWED WITHOUT SPECIAL PERMISSION.
24. FOR FURTHER DETAILS NOT SHOWN ON THESE PLANS SEE CITY OF NEWTON GENERAL CONSTRUCTION DETAILS @ [www.cityofnewton.us/dpw/engine/General Construction Details.pdf](http://www.cityofnewton.us/dpw/engine/General%20Construction%20Details.pdf)
25. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING, COMMUNICATING DIRECTLY WITH, AND SUBSEQUENTLY ADDRESSING THE NEEDS OF THE VISUALLY IMPAIRED, AND/OR THE PHYSICALLY CHALLENGED WHO RESIDE IN OR ABOUT THE PROJECT ZONE.
26. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION, POSTING AND SUBSEQUENT REMOVAL OF ALL TEMPORARY PARKING BANS. SIGNS SHALL NOT BE POSTED ON TREES. THE CONTRACTOR IS TO APPRISE THE CITY OF NEWTON TRAFFIC DIVISION OF EACH POSTING.
27. ● THE CONTRACTOR IS TO EXERCISE DUE CARE WHEN WORKING IN THE PROXIMITY OF STREET TREES. NO SCUFFING OF THE TRUNK WILL BE ALLOWED. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR TREE TRUNK AND/OR EXCESSIVE ROOT SYSTEM DAMAGE AND SHALL REMOVE AND REPLACE, AT HIS OWN EXPENSE, ANY TREE WHICH IS CARELESSLY DAMAGED.
- TREE PROTECTION MEASURES WILL BE ORDERED IF TREE TRUNK DAMAGE IS IN EVIDENCE. THE COST OF THESE PROTECTIVE MEASURES ARE TO BE BORNE BY THE CONTRACTOR. PROTECTIVE MEASURES SHALL BE PERFORMED IN A MANNER ACCEPTABLE TO THE ENGINEER.
- EXISTING TREE ROOTS ARE NOT TO BE DISTURBED UNLESS AUTHORIZED BY THE ENGINEER AND/OR THE SUPERINTENDENT OF FORESTRY/TREE WARDEN. THE CONTRACTOR IS RESPONSIBLE FOR CAREFULLY EXCAVATING IN AND ABOUT EXISTING ROOT SYSTEMS.
- NO TREES ARE TO BE REMOVED, NOR SHALL ANY TAP ROOTS LARGER THAN 2" IN DIAMETER, BE REMOVED UNTIL SUCH WORK HAS BEEN DIRECTLY AUTHORIZED BY THE CITY OF NEWTON TREE WARDEN OR HIS DESIGNEE. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THIS WORK.
28. POLICE DETAILS ARE TO BE COORDINATED BY THE CONTRACTOR.
29. BEFORE THE COMMENCEMENT OF ANY SITE ACTIVITIES THE CONTRACTOR SHALL INSTALL TREE PROTECTION TO EACH PUBLIC SHADE TREE WHERE THE EXCAVATION AND/OR CONSTRUCTION RELATED ACTIVITIES IS TO BE PERFORMED WITHIN THE DRIP-LINE OF ANY GIVEN TREE HAVING A TRUNK DIAMETER OF 3" OR MORE. FURTHER, THE ENGINEER RESERVES THE RIGHT TO DIRECT THE CONTRACTOR TO PROTECT ANY OTHER TREE AS FIELD CONDITIONS MAY NECESSITATE. HOWEVER, THE CONTRACTOR SHALL ALWAYS BE RESPONSIBLE FOR ANY DAMAGE CAUSED TO ANY TREE DUE TO HIS OPERATIONS. (SEE DETAIL BELOW)



TREE PROTECTION (TRUNK BANDING)  
(NOT TO SCALE)



CITY OF  
NEWTON

CONTRACT PLAN

FOR THE  
REPLACEMENT  
OF A PORTION OF THE  
NEWTONVILLE AVENUE 12" SEWER  
AND  
6" UNDERDRAIN  
(FROM HAVYARD ST. TO POINTS WESTERLY)

SCALE AS NOTED

JUNE 21, 2012

LOUIS M. TAVERNA, P.E.  
CITY ENGINEER







